

REMARKS

At the outset, the Examiner is thanked for the thorough review and consideration of the pending application. The office action dated May 5, 2003 has been received and its contents carefully reviewed.

Claims 1-37 remain in the application. Claims 1 and 9 are amended.

In the Office Action, claims 1-37 are rejected under 35 U.S.C. § 103(a) as being unpatentable over the Applicant's related art disclosed in the patent application (hereinafter "ARA") in view of U.S. Patent No. 6,344,883 to Yamada et al. (hereinafter "Yamada") and U.S. Patent No. 6,256,080 to Colgan et al. (hereinafter "Colgan").

The rejection of claim 1 is respectfully traversed and reconsideration is requested. Claim 1 is allowable over the cited references in that this claim recites a combination of elements including, for example, "a dielectric protrusion extending from the first substrate to the second substrate between the first dielectric frame and the second dielectric frame". None of the cited references including the related art, Yamada, and Colgan, singly or in combination, teaches or suggests at least this feature of the claimed invention. The Examiner identifies item 69 in FIG. 15 in Yamada as the dielectric protrusion, but the protrusion in Yamada does not extend from the first substrate to the second substrate as in claim 1. This protrusion only extends from one substrate part of the way to the other substrate. The examiner seeks to cure this deficiency by further citing Colgan.

The Examiner identifies ridges 706, 720, and 724 as spacers like the dielectric protrusion of the present invention. None of the ridges 706, 720, or 724 singly extend from the first substrate to the second substrate. The FIGs. 21A-24 identified by the Examiner all show combinations of these ridges being used as spacers.

Further there is no teaching to combine the ARA, Yamada, and Colgan. The examiner states: "Colgan is evidence that ordinary workers in the art of liquid crystal would find the reason, suggestion, or motivation to extend the dielectric frame and/or insulating protrusion to the opposed substrate to serve as a spacer to establish the cell gap." (See page 4 of the Office Action.) The Examiner does not provide a specific teaching in Colgan or Yamada that provides

the teaching or motivation to combine the references. Further, Yamada teaches away from using the dielectric protrusion as a spacer. In FIG. 12A, a spacer 65 is formed on the convex portion 66. (See column 25, lines 32-34.) The only spacers identified in Yamada are on the convex portions which the Examiner identifies as the first and second dielectric frames and not a protrusion in between the first and second dielectric frames. Further, the convex portions 66, themselves do not extend between the first and second substrate, but an additional spacer 65 is added to the convex portion 66.

Therefore, the structure of claim 1 of the present invention is different from the structure of the ARA, Yamada, and Colgan, either singly or in combination. Further, there is no teaching or suggestion to combine the ARA, Yamada, and Colgan. Accordingly, Applicant respectfully submits that claim 1 and claims 2-9, which depend from claim 1, are allowable over the cited references.

The rejection of claim 9 is respectfully traversed and reconsideration is requested. Claim 9 is allowable over the cited references in that this claim recites a combination of elements including, for example, "a third dielectric protrusion between the first dielectric protrusion and the second dielectric protrusion, wherein the third dielectric protrusion extends from the first substrate to the second substrate". None of the cited references including the ARA, Yamada, and Colgan, singly or in combination, teaches or suggests at least this feature of the claimed invention. The arguments discussed with respect to claim 1 above also apply to claim 9. Accordingly, Applicant respectfully submits that claim 9 and claims 10-19, which depend from claim 9, are allowable over the cited references.


The rejection of claim 20 is respectfully traversed and reconsideration is requested. Claim 20 is allowable over the cited references in that this claim recites a combination of elements including, for example, "a third insulating protrusion between the first and second insulating protrusions and acting as a spacer extending from the first substrate to the second substrate". None of the cited references including the ARA, Yamada, and Colgan, singly or in combination, teaches or suggests at least this feature of the claimed invention. The arguments discussed with respect to claim 1 above also apply to claim 20. Accordingly, Applicant respectfully submits that claim 20 and claims 21-37, which depend from claim 20, are allowable over the cited references.

Applicants believe the foregoing amendments place the application in condition for allowance and early, favorable action is respectfully solicited. If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at (202) 496-7500 to discuss the steps necessary for placing the application in condition for allowance. All correspondence should continue to be sent to the below-listed address.

If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. §1.136, and any additional fees required under 37 C.F.R. §1.136 for any necessary extension of time, or any other fees required to complete the filing of this response, may be charged to Deposit Account No. 50-0911. Please credit any overpayment to deposit Account No. 50-0911. A duplicate copy of this sheet is enclosed.

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Respectfully submitted,

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